Impulse Timing Relay for Rectifying Columns SOV/32-25-4-54/71

ASSOCIATION: Institut organicheskoy khimii im. N. D. Zelinskogo Akademii nauk SSSR (Institute of Organic Chemistry imeni N. D. Zelinskiy of the Academy of Sciences, USSR)

Card 2/2

LAVROV, I.A.

Remote manometer with a mechanism for transmitting motion to the plunger based on the deformation of elastic links.
Priborostroenie no.2:20-21 F '60. (MIRA 13:5)
(Manometer)

LAVROV, I.A.; TAYTS, S.Z.

Electromagnetic gas valve. Zav.lab 26 no.10:1176-1177 '60.
(MIRA 13:10)

1. Institut organicheskoy khimii Akademii nauk SSSR.
(Valves)

S/120/62/000/001/046/061
E039/E485

AUTHORS: Shakhovskoy, G.P., Lavrov, I.A., Pushkinskiy, M.D. Gonikberg, M.G.

TITLE: Apparatus for determining the compressibility of liquids

PERIODICAL: Pribory i tekhnika eksperimenta, no.1, 1962, 181-183

TEXT: The apparatus consists of a metallic sylphon bellows filled with the liquid under investigation and subjected to external hydraulic pressure. The change in length of the sylphon bellows is proportional to the change in volume of the contained liquid under the applied pressure. A wire with high electrical resistance is attached to the bottom of the bellows and slides along a contact fixed to the outer containing wall of the apparatus. By passing a current through the wire, potentiometric measurements can be made between the sliding contact and the end of the wire, hence giving a measure of the change in length of the bellows. A correction is made for the change in resistance of the wire with pressure. Data is given on the compressibility of distilled water at 0°C and compared with the results of Bridgeman

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Apparatus for determining ...

(see Table). The maximum difference between the authors' results and those of Bridgeman is 0.12%. Yu.A.Rumyantsev participated in the work. There 2 figures and 1 table.

ASSOCIATION: Institut organicheskoy khimii AN SSSR
(Institute of Organic Chemistry AS USSR)

SUBMITTED: June 15, 1961

Card 2/3

LAVROV, I.A.

Undecidability of elementary theories of certain rings. Alg. i log. 1 no.3:39 '62 (MIRA 18:1)

LAVROV, I.A.

Effective nonseparability of a set of identically true and a set of finitely refutable formulae of some elementary theories. Alg. i log. 2 no.1:5-18 '63 (MIRA 18:1)

SHAKHOVSKOY, G.P.; LAVROV, I.A.; GONIKBERG, M.G.; RUMYANTSEV, Yu.A.

Apparatus for viscosity measurements under pressure. Prib. i tekh. eksp. 8 no.5:203-207 S-O '63. (MIRA 16:12)

1. Institut organicheskoy khimii AN SSSR.

YERSHOV, Yu.L.; LAVROV, I.A.; TAYMANOV, A.D.; TAYTSLIN, M.A.

Elementary theories. Usp. mat. nauk. 20 no.4:37-108 Jl-Ag '65. (MIRA 18:8)

L 9583-66 EWT(d)/EWP(l) IJP(c) BB/GG

ACC NR: AP5028506 SOURCE CODE: UR/0286/65/000/020/0087/0087

INVENTOR: Lavrov, I. A.

ORG: none

TITLE: Integrator for an electronic potentiometer. Class 42, No. 175718

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 20, 1965, 87

TOPIC TAGS: integrator, electronic potentiometer

ABSTRACT: This Author Certificate introduces an integrator for an electronic potentiometer. The integrator is equipped with a constant-frequency electric-pulse generator, a scaling circuit, and an electromechanical device for controlling the scaling circuit. To increase the speed of operation, the control system is built in the form of a disk which rotates coaxially with the shaft of the slide wire of the potentiometer and interacts with two displacement pickups. One of the pickups is fixed and generates a signal which triggers the scaling circuit; the second is coupled with the slide wire lever and develops a signal which disconnects the circuit. In a variant, two permanent magnets are fixed on the disk for activating the pickups. In another variant, photocells are used as pickups. Two light sources, one fixed, the other mounted on the slide wire lever, activate the photocells. Orig. art. has: 1 figure. [JP]

SUB CODE: 09/ SUBM DATE: 22Jan64/ ATD PRESS: 4164

Card 1/1 UDC: 543.544.25.002.56

LAVROV, I.F. (Yaroslavl', ul. Chekohova, d.30, kv.17)

Perforation of the intestine by fish bones. Vest.khir. 83 no.12: 96-97 D '59. (MIRA 13:5)

1. Iz N-skogo voyennogo gospitalya.
(INTESTINES diseases)

LAVROVA, I.G., kand.med.nauk

"Practicum on the general theory of public health statistics" by R.N.Biriukova, N.V.Dogle, I.S.Sluchanko. Reviewed by I.G.Lavrova. Zdrav. Ros. Feder. 5 no.7:40-41 Jl '61. (MIRA 14:7)
(PUBLIC HEALTH--STATISTICS) (BIRIUKOVA, R.N.)
(DOGLE, N.V.) (SLUCHANKO, I.S.)

LAVROV, I. I.

30461

Opyt izuchye niya raboty dymososa u parovozov. Trudy mosk. zlyektromyekhan in-ta inzyenyerov Z.-D. transporta im. dzyerzinskogo. Vyp. 59, 1949, S. 247-58.

SO: Letopis' No. 34

LAVROV, I. I.

PHASE I BOOK EXPLOITATION SOV/4164

Vsesoyuznoye soveshchaniye po splavam redkikh metallov. 1st, Moscow, 1957

Redkiye metally i splavy; trudy... (Rare Metals and Alloys; Transactions of the First All-Union Conference on Rare-Metal Alloys) Moscow, Metallurgizdat, 1960. 436 p. 3,150 copies printed.

Sponsoring Agencies: Akademiya nauk SSSR. Institut metallurgii; USSR Komissiya po redkim metallam pri nauchno-tekhnicheskom komitete.

Ed.: I.I. Shapovalov; Ed. of Publishing House: O.M. Kamayeva; Tech. Ed.: P.G. Islent'yeva.

PURPOSE: This collection of articles is intended for metallurgical engineers, physicists, and workers in the machine-building and radio-engineering industries. It may also be used by students of schools of higher education.

COVERAGE: The collection contains technical papers which were presented and discussed at the First All-Union Conference on Rare-Metal Alloys, held in the Institute of Metallurgy, Academy of Sciences USSR in November 1957. Results of investigations of rare-metal alloys, titanium, and copper-base alloys with additions of rare metals are presented and discussed along with investigations of rhenium, vanadium, niobium, and their alloys. The effect of rare-earth metals on properties of magnesium alloys and steels is analyzed. The uses of rhenium as a dehydrating catalyst, electroplating material, and material suitable for making plugs for automobile electrical systems are discussed. Also, the effect of the addition of certain elements on the properties of heat-resistant steel is examined and alloys with special physical properties (particularly semiconductive alloys) are discussed. No personalities are mentioned. Soviet and non-Soviet references accompany some of the articles.

PART II. TITANIUM, AND COPPER-BASE ALLOYS WITH RARE-METAL ADDITIONS

Rare Metals (Cont.) SOV/4164

PART III. RHENIUM, VANADIUM, NIOBIUM, ZIRCONIUM AND ALLOYS BASED ON THEM

Card 4/8

(14)

S/149/61/000/004/007/008
A006/A101

1.1800 1087, 2206, 2808, 1208 25550

AUTHORS: Sklyarenko, S. I.; Lavrov, I. I.

TITLE: Electrolytical production of coatings with superconducting In-Tl alloy

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Tsvetnaya metallurgiya, no.4, 1961, 139-144

TEXT: The In-Tl alloy, obtained until the present by the fusion of components, possesses superconductivity at low temperatures. For the purpose of obtaining thin coatings of this alloy by electrolysis, an investigation was made using a copper base, with 10 - 20 weight % Tl. Preliminary tests showed the suitability of using a bath with sulfamine acid in which indium metal and monovalent thallium sulfate (Tl_2SO_4) were dissolved. Polarization curves were plotted for the deposition of indium, thallium and their alloy, and for hydrogen deposition on the cathode from sulfamate baths at different concentrations of indium and thallium in the electrolyte. It was revealed that In and Tl deposition from the sulfamate bath was accompanied by the deviation of the cathode potential from the equilibrium value. This deviation was higher for indium. Higher In concen-

Card 1/3

tration at low current densities reduced polarization, which fact indicates its concentration nature. The following optimum conditions for obtaining high quality deposits were established: 5 amp/dm^2 cathode current density; 50 g/l sulfamine concentration; In-Tl concentration ratio in the electrolyte: 10-40; temperature 50°C. Under the aforementioned conditions high-quality coatings with 22.6 weight % Tl at $C_{In} : C_{Tl} = 10$, and 12.5 weight % Tl at $C_{In} : C_{Tl} = 20$, were obtained. Special tests showed that higher temperatures increased the throwing power of the electrolyte. The described investigation has shown that it is possible to use the electrolytic method for obtaining thin (1 - 12 μ) compact coatings which are super-conducting at low temperatures, like an In-Tl alloy. The coatings are resistant to corrosion in an atmosphere of high humidity and temperature. Superconductivity of the alloy was studied at the laboratory of superconducting alloys at the Institute of Physical Problems, AS USSR, under the supervision of N. Ye. Alekseyevskiy. There are 2 tables, 6 figures and 7 references: 1 Soviet-bloc and 6 non-Soviet-bloc. The reference to the most recent English-language publication reads as follows: British patent no. 799280 from Aug. 6th, 1958.

25550

S/149/61/000/004/007/008
A006/A101

Electrolytical production of coatings ...

ASSOCIATIONS: Moskovskiy institut tonkoy khimicheskoy tekhnologii (Moscow Institute of Fine Chemical Technology) Problemnaya laboratoriya khimii i tekhnologii redkikh i rasseyannykh elementov i poluprovodnikovykh materialov (Pilot Laboratory of the Chemistry and Technology of Rare and Dispersed Elements and Semiconducting Materials)

SUBMITTED: November 11, 1960

X

Card 3/3

35087
S/697/61/000/000/013/018
D228/D303

18.1200

AUTHORS: Sklyarenko, S. I., Sominskaya, Z. M., Nikitina, A. A. and Lavrov, I. I.

TITLE: Investigating the possibility of electrolytically preparing certain rhenium alloys

SOURCE: Akademiya nauk SSSR. Institut metallurgii im. A. A. Baykova. Institut mineralogii, geokhimii i kristallokhimii redkikh elementov. Mezhduvedomstvennaya komissiya po redkim metallam. Vsesoyuznoye soveshchaniye po probleme reniya. Moscow, 1958. Reniy; trudy soveshchaniya. Moscow, Izd-vo AN SSSR, 1961, 152-158

TEXT: In this study the authors' aims were (1) to prepare Re-Cu, Re-Cr and Re-Cr-Ni alloys; (2) to investigate the relationship between the alloy composition, the electrolyte composition and temperature, and the cathode current-density; and (3) to determine the optimum conditions for obtaining high-grade ppts. Their laboratory apparatus which is illustrated in a diagram, included a Se recti-

Card 1/3

Investigating the possibility ...

fier, a universal thermostat, a voltage regulator, and a vessel for keeping the electrolyte at a steady temperature. Graphs were plotted from the results of the first group of tests to show the dependence of the current yield on the cathode current-density and the concentration of $CuSo_4$ in the electrolyte. The data suggest that a low-Cu alloy may be best prepared by electrolyzing material containing 50, 75, and 1 g/l of $KReO_4$, H_2SO_4 and $CuSO_4$ respectively at an electrolyte temperature of 75°C and a current density of 20 - 40 amp/dm^2. For an alloy with up to 36% Cu the corresponding concentrations are 200, 45, and 125 g/l, at 20°C and 1 - 2 amp/dm^2. The authors then consider how certain factors -- the component ratio, the H_2SO_4 concentration, the anode composition, etc. -- influence the electropptn. of Re-Cr alloys. A deposit with 1% Cr was obtained from the electrolysis of a solution containing $KReO_4$ 50, Cr_2O_3 15, $(NH_4)2SO_4$ 40, and H_2SO_4 75 g/l at 70 - 75°C and 100 amp/dm^2. The employment of a cathode of Cu plate and an anode of Pt or Pb-Sb is

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advised under such conditions. The effect of variations in the concentration of electrolyte components on the composition of Re-Cr-Ni alloys was then studied in a third series of experiments. It is concluded from these data that satisfactory results can be achieved at 70 - 75°C and 40 - 80 amp/dm^2 with a bath of the following composition: $KReO_4$ 10-50, Cr_2O_3 10-25, $NiSO_4$ 40, $(NH_4)_2SO_4$ 40, and H_2SO_4 75 g/l. A table demonstrates the concentration of KReO in the electrolyte and the Re:Cr:Ni ratio in the alloy. There are 4 figures, 1 table and 4 non-Soviet-bloc references. The 4 most recent references to the English-language publications read as follows: C. G. Fink et al., Trans. Electrochem. Soc., 66, 471, (1934); C.B. F. Young, Metal Ind., 34, 176, (1934); L. E. Netherton et al., J. Electrochem. Soc., 99, 44 (1952); and 98, 106 (1954). [Abstracter's note: Last two references incorrectly given?]

Card 3/3

1 1660
5 1310

24006
S/080/61/034/006/008/020
D247/D305

AUTHORS: Skiyarenko, S.I., Lavrov, I.I., and Shamagin, Yu.P.

TITLE: Electrolytic production of rhenium coatings from aqueous solutions using alternating current

PERIODICAL: Zhurnal prikladnoy khimii, v. 34, no. 6, 1961, 1285 - 1286

TEXT: Reference is made to earlier works on the use of an a.c. current in the electrode position of metals (Ref. 1: G.T. Bakhvalov, Trudy vtoroy vsesoyuznoy konferentsii po teoreticheskoy i prikladnoy elektrokhimii. Izd. AN USSR, Kiev, 1949); (Ref. 2: N.N. Blokina and L.Ya. Bogorad, Inform. tekhn. listok, LDNTP, no. 65, 1956); (Ref. 3: N.N. Blokhov, Gal'vanicheskiye pokrytiya na toke peremennoy polyarnosti, Mashgiz, M., 1958) and to its introduction in industrial practice (Ref. 8: G.T. Bakhvalov, Vestn. inzh. i tekhn., 4, 1953); (Ref. 9: L.Ya. Bogorad, Inform. tekhn. listok, LDNTP, 1957, no. 37). The present paper gives reports of studies

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Electrolytic production of ...

on the effect of a.c. on electrolytic formation of Re coatings from aqueous solutions, including the effect of direct and alternating current density of cathode (t_k) and anode (t_a) periods, and the ratio of t_k/t_a on the indices of electrolysis, and properties of Re coatings. Experiments were made with parallel a.c. and d.c. currents, the cathode current density of the d.c. current being 80-100 a/dm^2. The electrical circuit is shown. It was established that a.c. current density should be one-half that of the d.c. current. Current efficiency was calculated by the method of Bibikov (Ref. 3: Op.cit.). Experimental data related to the effect of current density on electrolytic indices are shown in Table 1. The use of alternating current is shown to improve the quality of the coating and to increase current by approximately 1.5-fold. It also reduces the bath voltage. The microstructure of the Re coating is also shown. The t_k/t_a ratio has a considerable influence on the quality of deposition. Electrolysis carried out at 18-20°C, with d.c. current density of 140 A/dm^2 and a.c. of 70 A/dm^2 was compared. The effects of the ratio t_k/t_a are shown. The optimum value

Card 2/6

Electrolytic production of ...

of the ratio is from 3 to 5, giving a good shiny coating with current efficiency of 18-20 %. Temperatures between 20-60°C show no marked effect on deposit quality but, above 60°C, the quality tends to deteriorate. Dispersability of the electrolyte was determined in a rectangular bath with a glass screen and calculated from the formula

$$T = \frac{(K - \frac{M_n}{M_f})}{K + \frac{M_n}{M_f} - 2} \cdot 100,$$

where T is the dispersability of the electrolyte (%), K - initial current distribution (=2), M_n - weight of coating on near cathode, M_f - weight of coating on far cathode (in g). The effect is shown of current density on dispersability of electrolyte with a t_k/t_a ratio of 5.2. Fig. 4 shows the influence of this ratio on dispersability for optimum current density and electrolyte temperature and

Card 3/6

Electrolytic production of ...

indicates that dispersability reached a maximum with $t_k/t_a = 6$. There are 4 figures, 3 tables and there are 11 references: 7 Soviet-bloc and 4 non-Soviet-bloc.

SUBMITTED: May 20, 1960

Table 1. Effect of current density on electrolysis indices with alternating current using an electropneumatic control device. Coating thickness 10-12.

Legend: A - direct current; B - alternating current; C - current density (A/dm^2); D - voltage; E - external appearance of coating; F - current efficiency (%); G - current density (A/dm^2); H - voltage; I - external appearance of coating; J - current efficiency (%); K - d.c.; L - a.c.; M - d.c.; N - a.c.; O - shiny; P - matte; Q - shiny.

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Electrolytic production of ...

Table 1 (Cont'd).

ТАБЛИЦА 1

Влияние плотности тока на показатели процесса электролиза

Толщина покрытия 10—12 μ

A Постоянный ток				B Ток переменной полярности					
C плотность тока (А/дм²)	D напряжение (V)	E внешний вид покрытия	F выход по току (%)	G плотность тока (А/дм²)		H напряжение (V)		I внешний вид покрытия	J выход по току (%)
				K прямого	L обратного	M прямое	N обратное		
80	13.0	O Светлое	30.5	80	40	9.1	5.1	Q Глянцевое	17.0
90	15.1		33.2	90	45	10.2	6.0		19.3
100	16.2		35.8	100	50	11.0	6.4		21.3
110	20.0		36.9	110	55	12.3	6.8		22.1
120	21.0		38.2	120	60	13.1	7.1		23.3
130	22.1	P Матовое	—	130	65	14.2	7.4		24.4
150	24.4		—	140	70	16.3	7.8	P Матовое	25.5
—	—	—	—	160	80	17.4	8.0		29.5
—	—	—	—	170	85	18.1	8.8		—

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S/080/61/034/006/008/020
D247/D305

Electrolytic production of ...

Fig. 4. Graph showing influence of relation of t_K/t_a (A) on electrolyte dispersability (B).

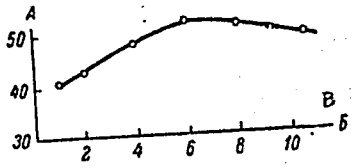

Рис. 4. Влияние отношения $\frac{t_к}{t_а}$ на рассеивающую способность электролита.

А — рассеивающая способность (%).

В Б — отношение $\frac{t_к}{t_а}$.

Card 6/6

34138

S/149/62/000/001/005/009
A006/A101

1.1600
18.3100

AUTHORS: Sklyarenko, S. I., Lavrov, I. I., Shamagin, Yu. P.

TITLE: The use of current of alternating polarity in the electrolytic production of rhenium powder

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Tsvetnaya metallurgiya, no. 1, 1962, 111 - 114

TEXT: It was attempted for the first time to produce electrolytical rhenium powder for the manufacture of compact metal, with the aid of current of alternating polarity. The bath contained in g/l: potassium perrhenate 50; ammonium sulfate 30 - 40; concentrated sulfuric acid 40 - 75 (specific weight 1.84). A tantalum plate was employed as a cathode and platinum as an anode. As a result of preliminary experiments the following optimum conditions of electrolysis were established: density of current of direct polarity - 100 amp/dm^2; density of current of reverse polarity - 50 amp/dm^2; electrolyte temperature 75°C. The process was conducted on a laboratory unit with flowing electrolyte. It was simplified by the use of a commanding electro-pneumatic device for reverse current. The authors studied, furthermore, the effect of the ratio of the cathode

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S/149/62/000/001/005/009
A006/A101

The use of current of...

and anode period duration, varying from 2 to 8, on the properties and the quality of the powder. The metal yield per current was calculated by N. N. Bibikov's formula: $\eta = \frac{26.8\ m\ n}{M\ (I_{dir.}\ t_c - I_{rev.}\ t_a)} 100\%$, where m is the metal weight on the cathode, in g; 26.8 is the Faraday number, in amp-hour; n - metal valence; M - the atomic weight of the metal; $I_{dir.}$ and $I_{rev.}$ the intensity of current of direct and reverse polarity, in amps; t_c and t_a the duration of the cathodic and anodic period, in hours. The rhenium powder obtained with the aid of current of alternating polarity, shows higher dispersity and improved cermet properties than a powder obtained with electrolysis on d-c. There are 1 figure, 2 tables and 5 references, 3 Soviet-bloc and 2 non-Soviet-bloc.

ASSOCIATION: Moskovskiy institut tonkoy khimicheskoy tekhnologii (Moscow Institute of Fine Chemical Technology) Kafedra khimii i tekhnologii redkikh i rasseyannykh elementov (Department of Chemistry of Rare and Dispersed Elements)

SUBMITTED: March 8, 1961

Card 2/2

S/149/62/000/002/008/008
A006/A101

K.1/100

AUTHORS: Sklyarenko, S.I., Lavrov, I. I., Yakobson, S. V.

TITLE: Electrolytic deposition of tin-germanium and antimony-germanium alloys

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Tsvetnaya metallurgiya, no. 2, 1962, 129-134

TEXT: The authors studied the possibility of deposition of germanium as an alloying admixture combined with the production of coatings with binary Sn-Ge and Sb-Ge alloys. The coatings were deposited on a copper foil; graphite was employed as an anode. The authors studied the effect of germanium concentration in the electrolyte, cathodic current density and electrolyte temperature on the current efficiency and the basic indices of the process. The following conditions were established assuring the production of high-quality coatings. To obtain coatings with Sn-Ge alloy the authors recommend an electrolyte containing in g/l: 90 NaOH, 0.45 - 4.5 Ge in the form of GeO_2, 45 Sn (in the form of tetrachloride salt); D_a = 0.5 - 1.5 amp/dm^2; t = 65°C. Under these conditions high quality tin-germanium coatings up to 8 μ thick are obtained, containing

Card 1/2

Electrolytic deposition of tin-germanium ...

10 - 51 weight % Ge. The current efficiency is 16 - 17%. The throwing power of the electrolyte attains 72%. For coatings with Sb-Ge alloys containing 1 - 12 weight % Ge the electrolyte should contain in g/l: 180 NaOH, 100 Na_2S, 2 - 10 Ge, 10 Sb. Current density from 0.25 - 2 amp/dm^2, and 40 - 60°C temperature are recommended. Maximum thickness of the coating is 6 - 7 μ and the throwing power of the electrolyte attains 87%. The coatings showed high corrosion resistance in various media. There are 2 tables, 6 figures and 6 references: 4 non-Soviet-bloc and 2 Soviet-bloc.

ASSOCIATIONS: Moskovskiy institut tonkoy khimicheskoy tekhnologii (Moscow Institute of Fine Chemical Technology); Kafedra tekhnologii redkikh i rasseyannykh elementov (Department of the Technology of Rare and Dispersed Elements)

SUBMITTED: July 10,1961

Card 2/2

S/137/62/000/006/067/163
A052/A101

AUTHORS: Sklyarenko, S. I., Sominskaya, Z. M., Nikitina, A. A., Lavrov, I. I.

TITLE: An investigation of possibility of electrolytic production of some rhenium alloys

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 6, 1962, 29, abstract 6G222 (In collection: "Reniy", Moscow, AN SSSR, 1961, 152 - 158)

TEXT: The possibility is proved of producing binary alloys of Re with Cu and Cr and also with Cr and Ni by means of aqueous solution electrolysis. The dependence of the quality and composition of the alloy on the concentration of components in electrolyte, D_c and temperature of electrolyte has been studied. Optimum conditions of producing high-quality alloy deposits are: 1. For Re-Cu alloy the bath composition (in g/l): $CuSO_4$ 125, H_2SO_4 (strong) 45, $NaReO_4$ 200; D_c = 1 - 2 a/dm^2, the temperature of electrolyte 20°C, Re content in the alloy 2.4% by weight; current efficiency ~100%. 2. For Re-Cr alloy the bath composition (in g/l): $KReO_4$ 50, CrO_3 15, $(NH_4)_2SO_4$ 40, H_2SO_4 (strong) 75; D_c = 100 a/dm^2, the temperature of electrolyte 70 - 75°C, Cr content in the alloy reaches 1%.

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S/137/62/000/006/067/163
An investigation of... A052/A101

3. For the alloy of Re with Cr and Ni the bath composition (in g/l): $KReO_4$ 10 - 50 CrO_3 10 - 25, $NiSO_4$ 50 - 120, $(NH_4)_2SO_4$ 40, H_2SO_4 (strong) 75; D_c = 40 - 80 a/dm^2, the temperature of electrolyte 70 - 75°C. Current efficiency 60%.

G. Svodtseva

[Abstracter's note: Complete translation]

Card 2/2

SKLYARENKO, S.I.; LAVROV, I.I.; SHAMAGIN, Yu.P.

Using currents of alternating polarity in the electrolytic preparation of rehenium powder. Izv.vys.ucheb.zav.; tsvet.met. 5 no.1:111-114 '62. (MIRA 15:2)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii, kafedra khimii i tekhnologii redkikh i rasseyannykh elementov.
(Rhenium—Electrometallurgy) (Metal powders)

SKLYARENKO, S.I.; LAVROV, I.I.; YAKOBSON, S.V.

Electrodeposition of tin-germanium and antimony-germanium alloys. Izv. vys. ucheb. zav.; tsvet. met. 5 no.2:129-134 '62. (MIRA 15:3)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii, kafedra tekhnologii redkikh i rasseyannykh elementov.
(Electroplating) (Tin-germanium--Electrometallurgy)
(Antimony-germanium--Electrometallurgy)

SKLYARENKO, S.I., prof. [deceased]; LAVROV, I.I.

Electrolytic platings with rare metals and their alloys.
Zhur. VKHO 8 no.5:530-537 '63. (MIRA 17:1)

LAVROV, I. I.

Peat Industry

Automatic grip for a track-layer. Torf. prom 29 no. 5, 1952.

MONTHLY LIST OF RUSSIAN ACCESSIONS. Library of Congress, August, 1952. UNCLASSIFIED.

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R000928820017-4"

LAVROV, I.I., inzhener.

Stable equilibrium of sections during tracklaying. Torf.prom. 30 no.8: 12-13 Ag '53. (MLRA 6:7)

1. Demikhovskiy zavod. (Railroads--Track)

LAVROV, I.I.

Ribbed skew washers. Torf.prom. 31 no.4:29-30 '54. (MLRA 7:6)

1. Demikhovskiy mashinostroitel'nyy zavod.
(Dies (Metal working)) (Washers (Mechanics))

LAVROV, I.I., inzhener

Drawing holder. Torf.prom. 32 no.3:30 '55. (MLRA 8:6)

1. Demikhovskiy mashinostroitel'nyy zavod.
(Machine shops--Equipment and supplies)

LAVROV, I.I.

Protective shield for lathes. Torf.prom.32 no.4:31 '55.
(MIRA 8:10)

1. Demikhovskiy mashinostroitel'nyy zavod.
(Lathes)

LAVROV, I.K.; ZONOV, G.B.

Distribution and number of the field vole Microtus oeconomus in Irkutsk Province. Dokl. Irk. gos. nauch.-issl. protivochum. inst. no.5:115-116 '63 (MIRA 18:1)

LAVROV, I.N. (Moskva I-90, Troitskaya ul., d.8, kv.25-a)

Classification of fractures of the fundus of the trochanteric fossa and central dislocations of the hip. Ortop.,travm.i protez. 22 no.3:18-22 '61. (MIRA 14:4)

1. Iz 2-y kliniki (rukovoditel' kliniki - prof. B.A. Petrov, rukovoditel' raboty - d-r med.nauk I.I. Sokolov) Instituta im. Sklifosovskogo (dir. - zasluzh. vrach USSR M.M. Tarasov).
(HIP JOINT—FRACTURE)

LAVROV, I.N.

Mechanism of fracture formation of the trochanteric fossa and central dislocation of the hip. Khirurgiia 39 no.5:20-25 My '63. (MIRA 17:1)

1. Iz 2-y travmatologicheskoy kliniki (rukovoditel' - prof. I.I. Sokolov) Moskovskogo gorodskogo nauchno-issledovatel'skogo instituta skoroy pomoshchi imeni N.V. Sklifosovskogo (dir. - zasluzhennyy vrach UkrSSR M.M. Tarasov).

LAVROV, I. P.

Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 5, p 159 (USSR) 15-57-5-6835

AUTHORS: Shneyerson, B. L., Lavrov, I. P.

TITLE: An Experiment of Applying a Detailed Gravimetric Survey in the Region of the Kuzbas (Opyt primeneniya detal'noy gravimetricheskoy s"yemki v rayone Kuzbassa)

PERIODICAL: Prikl. geofizika, Nr 15, 1956, pp 103-108.

ABSTRACT: In 1953 an experimental-type detailed gravimetric survey of high precision was made over the Borisovskaya struktura (structure) in the northeastern part of the Kuznetsk Basin on the western slope of the Krapivenskoye uplift. The measurements were made by two SN-3 quartz gravimeters along four east-west profiles, intersecting the strike of the rocks in the crestal part of the southern uplift of the Borisovskaya structure. The distance between the profiles was 0.5 km, and the station spacing along the profiles was 250 m. At most

Card 1/2

An Experiment of Applying a Detailed Gravimetric Survey (Cont.)

points four readings were made on separate traverses. The measurements of Δg are shown graphically along each of the four profiles. A local positive anomaly amounting to about three milligals is observed on each profile against the background of a regional increase in gravity. This small anomaly corresponds to the crest of the Borisovskaya structure. An agreement is observed between the derived curve of Δg and the slope angle of the flanking horizons on the western and eastern limbs of the uplift. An attempt is made to evaluate approximately the position of the disturbed mass as affected by the local anomaly of the Borisovskaya structure.

Card 2/2

A. L.

LAVROV, I.S.

Flocculation in the electrophoretic deposition of carbonate suspensions [with summary in English]. Koll.zhur. 23 no.4: 423-427 Jl-Ag '61. (MIRA 14:8)

1. Leningradskiy tekhnologicheskiy institut im. Lensoveta.
(Flocculation) (Electrophoresis)

BIBIK, Ye.Ye.; LAVROV, I.S.

Magnetooptical effects in magnetite sol. Koll. zhur. 26 no.3: 391-392 My-Je '64. (MIRA 17:9)

1. Leningradskiy tekhnologicheskiy institut imeni Lensoveta, kafedra kolloidnoy khimii.

L 5037-66 EWT(1) IJP(c)

ACCESSION NR: AP5024018 UR/0069/65/027/005/0652/0655
541.182:538.114

AUTHOR: Bibik, Ye. Ye.; Lavrov, I. S.

TITLE: Stability of dispersions of ferromagnetics

SOURCE: Kolloidnyy zhurnal, v. 27, no. 5, 1965, 652-655

TOPIC TAGS: ferromagnetic material, chemical dispersion, ferroelectric material

ABSTRACT: The authors analyze the dependence of the stability of disperse ferromagnetic systems on the energy of magnetic particle attraction in the light of the Deryagin-Landau stability theory (V. B. Deryagin, L. D. Landau, Zh. eksp. i teoret. fiziki 2, 802, 1941; 15, 662, 1945) and of reported experimental data. The magnetic interaction between the particles has a considerable effect on the stability of such dispersions. The contribution of the magnetic interaction to the total balance of interparticle forces depends on the particle size. By applying an external magnetic field, one can vary the energy of attraction of the particles over a wide range. A comparison of the various components of the particle interaction in magnetite sols indicates that particle solvation and

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ACCESSION NR: AP5024018

the structural-mechanical factor play a substantial part in the stabilization of such sols. It is noted that the forces of repulsion between the particles of the magnetite sol and also between the particles and surface of the sample should be taken into account in developing the domain structure of materials (magnetic metallography). Ferroelectrics, which are electric analogs of ferromagnetics, should have many properties in common with ferromagnetics in highly disperse states, particularly in nonpolar media. Orig. art. has: 2 figures and 4 formulas.

ASSOCIATION: Kafedra kolloidnoy khimii, Leningradskiy tekhnologicheskiy institut im. Lensoveta (Department of Colloid Chemistry, Leningrad Technological Institute)

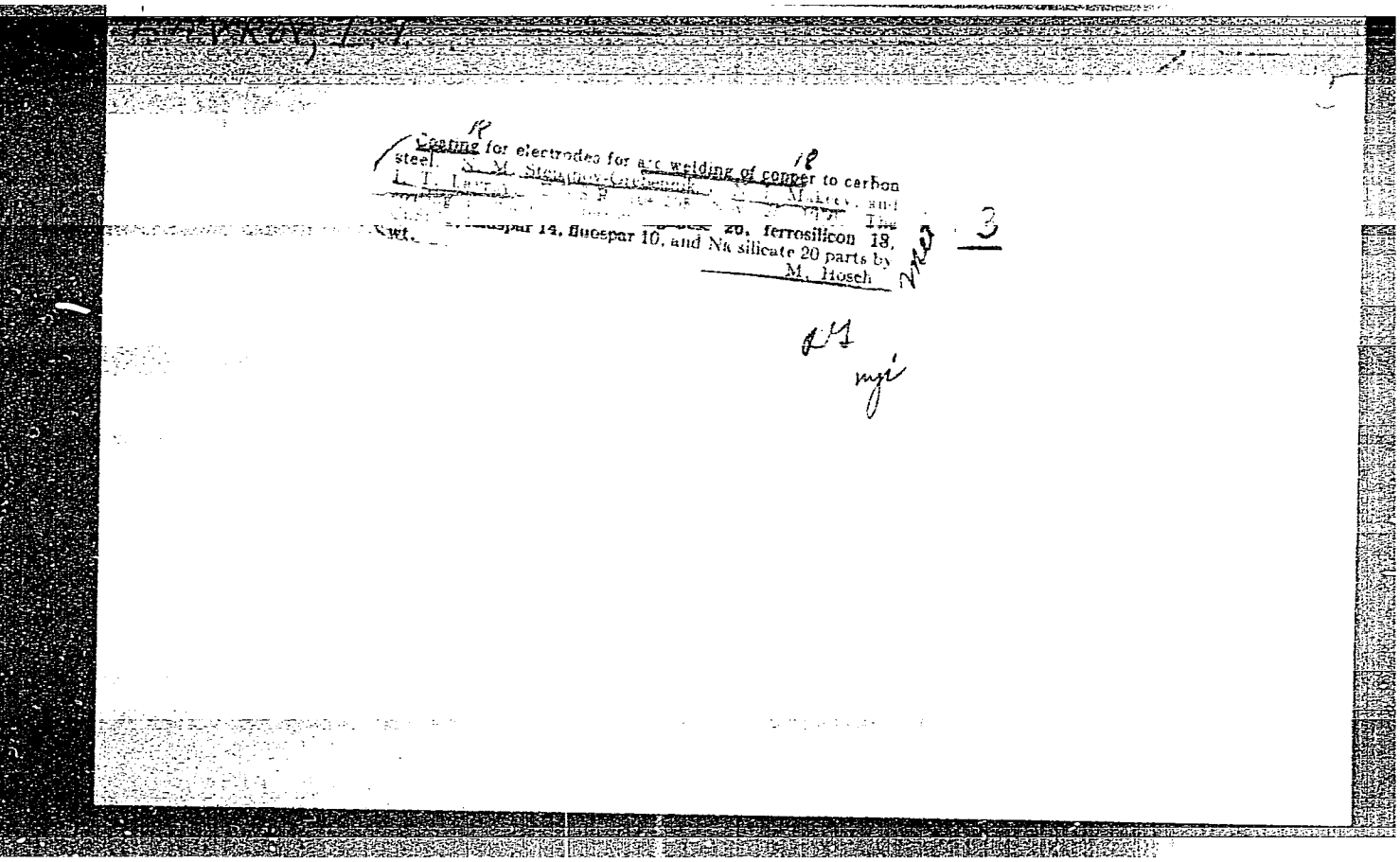
SUBMITTED: 06Jun64 ENCL: 00 SUB CODE: EM, GC

NO REF SOV: 012 OTHER: 006

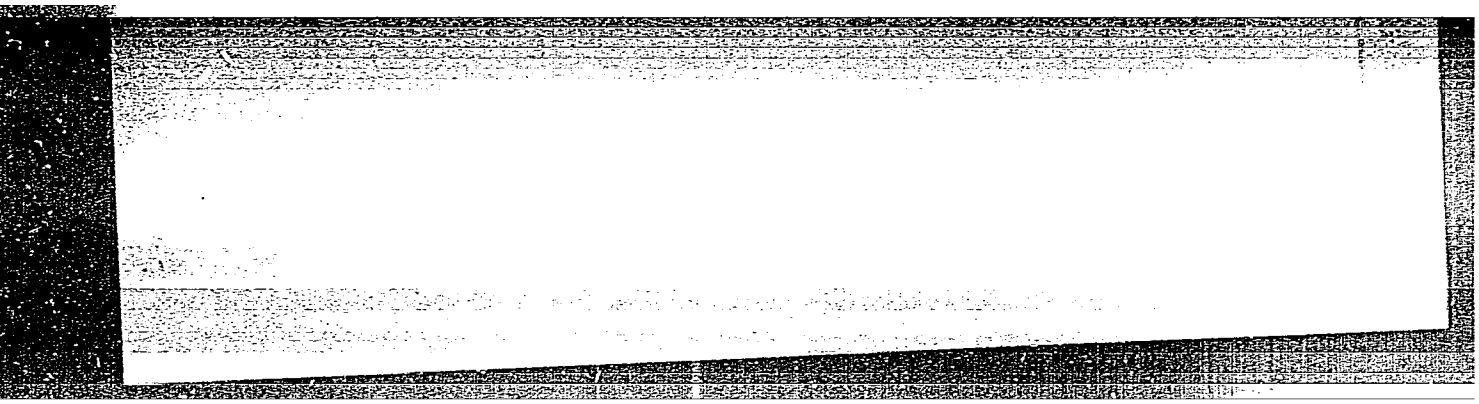
Card 2/2

MURZIN, A.R.; TAGANOV, N.I.; LAVROV, I.S.; MIKHAILOV, M.S.

Mechanism of the thickening of suspensions. Zhur. prikl. khim. 38 no.4:870-877 Ap '65. (MIRA 18:6)



Coating for electrodes for arc welding of copper to carbon steel. [illegible] Wt. [illegible]spar 14, fluespar 10, and Na silicate 20 parts by [illegible] 20, ferrosilicon 18, M. Hosch



APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R000928820017-4"

LAVROV, I.S.

Formation of structures in the electrophoretic deposition of suspensions. Trudy LTI no.61:136-143 '60. (MIRA 15:5)
(Electrophoresis) (Suspensions (Chemistry))

WW

ACCESSION NR: AP4037180 S/0069/64/026/003/0391/0392

AUTHOR: Bibik, Ye. Ye.; Lavrov, I. S.

TITLE: Magneto-optical effects in magnetite sol

SOURCE: Kolloidnyy zhurnal, v. 26, no. 3, 1964, 391-392

TOPIC TAGS: magnetite sol, magnetic field effect, magneto optical effect, aggregate formation, interparticle potential barrier, optical property, extinction coefficient, sol stability, determination, transparency

ABSTRACT: An investigation was made into the effect of a magnetic field on transparency of magnetite suspensions. Under the action of the magnetic field, thread-like aggregates are formed in an Fe_3O_4 sol. At field intensities up to 40,000 amp/m, this association causes an increase in the extinction coefficient along the direction of the lines of force of the field according to Rayleigh's law, owing to retention of their interparticle potential barriers. When the magnetic field is shut down the sol relaxes and completely recovers its initial optical properties due to the breaking up of the associations to individual particles. This effect indicates a new method for studying the stability of sols. It

Card 1/2

L 23906-65

ACCESSION NR: AP4037180

was found that with a particle size less than 2000A in a field up to 25,000 amp/m, the transparency increases (aggregation has not started) along the lines of force in a stable sol. In this case, the repulsive energy of the particles exceeds the energy of their magnetic dipole reaction. An addition of 150-200 millimoles/liter of NaCl causes the formation of aggregates under the action of a magnetic field. During the first 2-3 minutes after adding sufficient electrolyte to the sol to cause coagulation in 3-5 minutes, partial relaxation is promoted by the action of the magnetic field. Orig. art. has: no graphics.

ASSOCIATION: Leningradskiy tekhnologicheskiy institut im. Lensovyeta, Kafedra kolloidnoy khimii (Leningrad Technological Institute, Department of Colloidal Chemistry)

SUBMITTED: 09Jan64 ENCL: 00 SUB CODE: IC, EM

NO REF SOV: 001 OTHER: 005

Card 2/2

US'YAROV, O.G.; LAVROV, I.S.; YEFREMOV, I.F.

Compacting of sediments in a static electric field. Koll. zhur. 27 no.5:787-788 S-O '65. (MIRA 18:10)

1. Leningradskiy tekhnologicheskiy institut imeni Lensoveta.

LAVROV, I.V.

SARYLOVA, K.P., dotsent; TOTOCHENKO, V.K.; LAVROV, I.V.; BOGOMOLOVA, N.I. KUROV, V.D.

Clinical aspects of hemorrhagic capillarotoxicosis in children. Pediatriia no.4:55-58 Jl-Ag '55. (MLRA 8:12)

1. Iz fakul'tetskoy detskoy kliniki II Moskovskogo meditsinskogo instituta (zav.-prof. P.A.Ponomareva)
(PURPURA, MONTHROMBOPENIC, in infant and child)

LAVROV, IGOR' VENIAMINOVICH

PHASE I BOOK EXPLOITATION 600

Filonenko, Nina Yevgen'yevna and Lavrov, Igor' Veniaminovich

Petrografiya iskusstevennykh abrazivov (Petrography of Synthetic Abrasives) Moscow, Mashgiz, 1958, 90 p. 2,000 copies printed.

Reviewer: Karlin, V.V., Candidate of Technical Sciences; Ed.: Nikogosyan, Kh. S., Candidate of Technical Sciences; Ed. of Publishing House: Borodulina, I.A.; Tech. Ed.: Sokolova, L.V.; Managing Ed. for literature on machine-building technology (Mashgiz, Leningrad Division): Naumov, Ye. P., Engineer.

PURPOSE: This book is intended for engineers, technicians, and scientific personnel whose work is concerned with the production of abrasives, refractories, electrical equipment, and cutting tools.

COVERAGE: The book deals with the phase composition and structure of abrasive materials and cutting tools and with the physical and chemical basis of their production. The materials described are:

Card 1/5

common and white electrocorundum, monocorundum, silicon carbide, and boron carbide. The authors have attempted to gather together into one small volume information which hitherto has been available only in scattered magazine articles. There are 77 references, of which 57 are Soviet, 10 English, 9 German, and 1 French. No personalities are mentioned.

TABLE OF CONTENTS:

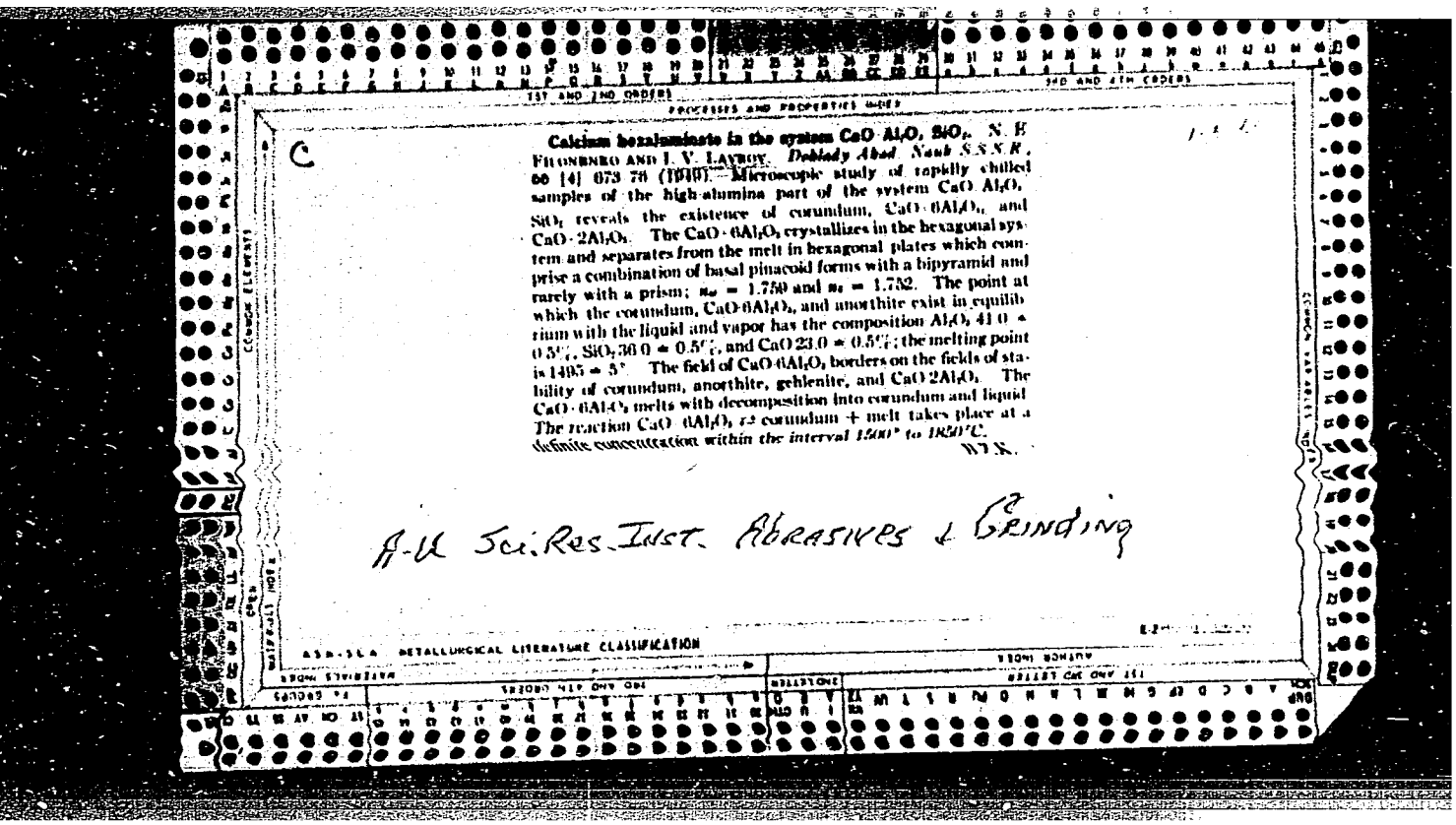
AVAILABLE: Library of Congress

GO/lsb
29 August 1958

Card 5/5

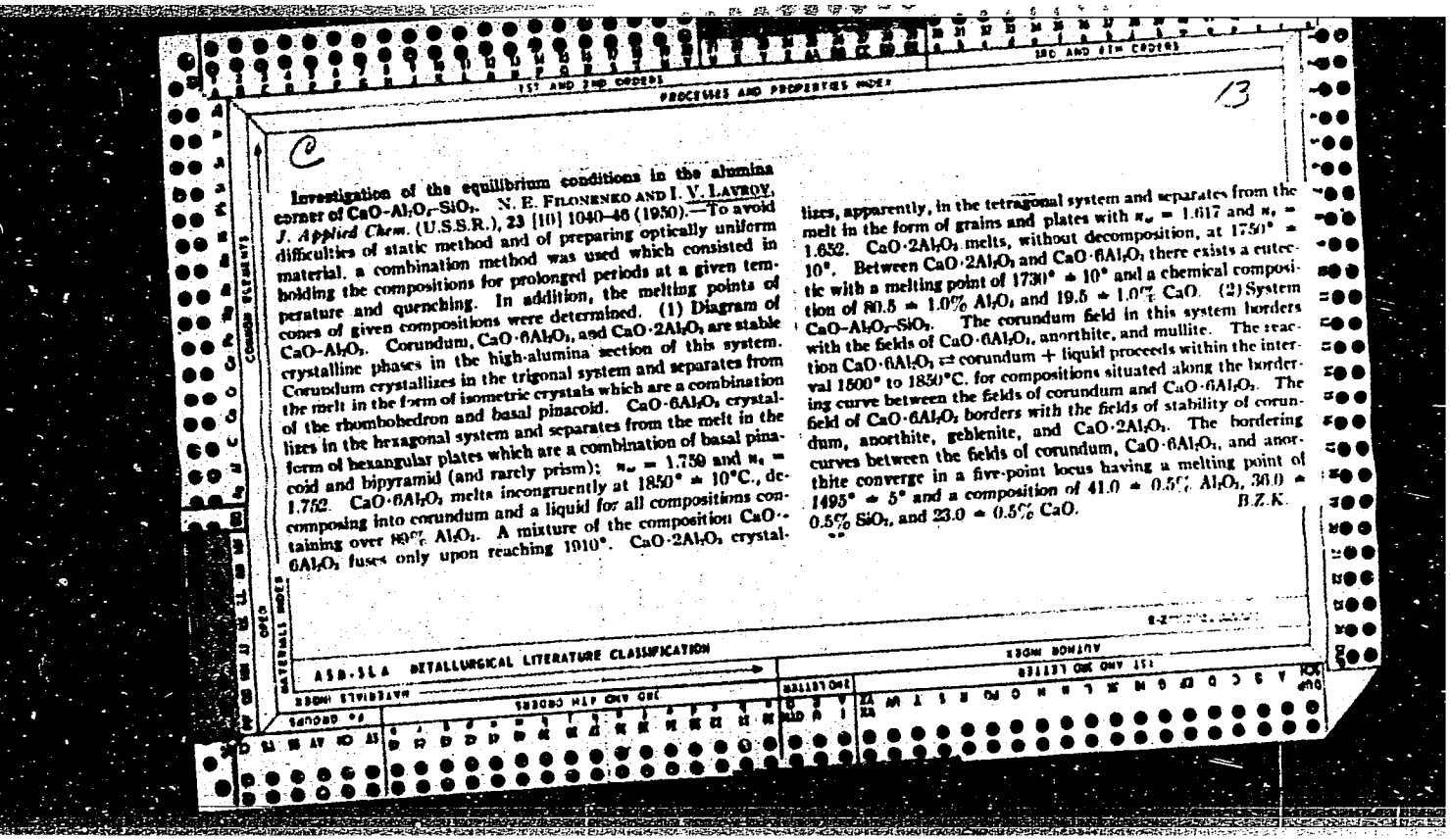
LAVROV, I.V., dorozhnyy master (st. Oshmyany Belorusskoy dorogi)

On a track equipped with reinforced concrete ties. Put' i put.khoz. no.10:28-29 O '58. (MIRA 11:12)
(Railroads--Ties, Concrete)



Calcium hexaluminate in the system CaO-Al_2O_3-SiO_2. N. F. FILONENKO AND I. V. LAVROV. *Doklady Akad. Nauk S.S.S.R.*, 66 [4] 673-76 (1949).—Microscopic study of rapidly chilled samples of the high-alumina part of the system CaO-Al_2O_3-SiO_2 reveals the existence of corundum, $CaO \cdot 6Al_2O_3$, and $CaO \cdot 2Al_2O_3$. The $CaO \cdot 6Al_2O_3$ crystallizes in the hexagonal system and separates from the melt in hexagonal plates which comprise a combination of basal pinacoid forms with a bipyramid and rarely with a prism; $n_\omega = 1.750$ and $n_\epsilon = 1.752$. The point at which the corundum, $CaO \cdot 6Al_2O_3$, and anorthite exist in equilibrium with the liquid and vapor has the composition Al_2O_3 41.0 ± 0.5%, SiO_2 36.0 ± 0.5%, and CaO 23.0 ± 0.5%; the melting point is 1495 ± 5°. The field of $CaO \cdot 6Al_2O_3$ borders on the fields of stability of corundum, anorthite, gehlenite, and $CaO \cdot 2Al_2O_3$. The $CaO \cdot 6Al_2O_3$ melts with decomposition into corundum and liquid. The reaction $CaO \cdot 6Al_2O_3$ ⇌ corundum + melt takes place at a definite concentration within the interval 1500° to 1850°C.
W. N.

A-U Sci. Res. Inst. Abrasives & Grinding



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13

Investigation of the equilibrium conditions in the alumina corner of CaO-Al_2O_3-SiO_2. N. E. Filonenko and I. V. Lavrov, *J. Applied Chem.* (U.S.S.R.), **23** [10] 1040–46 (1950).—To avoid difficulties of static method and of preparing optically uniform material, a combination method was used which consisted in holding the compositions for prolonged periods at a given temperature and quenching. In addition, the melting points of cones of given compositions were determined. (1) Diagram of CaO-Al_2O_3. Corundum, $CaO \cdot 6Al_2O_3$, and $CaO \cdot 2Al_2O_3$ are stable crystalline phases in the high-alumina section of this system. Corundum crystallizes in the trigonal system and separates from the melt in the form of isometric crystals which are a combination of the rhombohedron and basal pinacoid. $CaO \cdot 6Al_2O_3$ crystallizes in the hexagonal system and separates from the melt in the form of hexangular plates which are a combination of basal pinacoid and bipyramid (and rarely prism); $n_\omega = 1.759$ and $n_\varepsilon = 1.752$. $CaO \cdot 6Al_2O_3$ melts incongruently at 1850° ± 10°C., decomposing into corundum and a liquid for all compositions containing over 89% Al_2O_3. A mixture of the composition $CaO \cdot 6Al_2O_3$ fuses only upon reaching 1910°. $CaO \cdot 2Al_2O_3$ crystallizes, apparently, in the tetragonal system and separates from the melt in the form of grains and plates with $n_\omega = 1.617$ and $n_\varepsilon = 1.652$. $CaO \cdot 2Al_2O_3$ melts, without decomposition, at 1750° ± 10°. Between $CaO \cdot 2Al_2O_3$ and $CaO \cdot 6Al_2O_3$ there exists a eutectic with a melting point of 1730° ± 10° and a chemical composition of 80.5 ± 1.0% Al_2O_3 and 19.5 ± 1.0% CaO. (2) System CaO-Al_2O_3-SiO_2. The corundum field in this system borders with the fields of $CaO \cdot 6Al_2O_3$, anorthite, and mullite. The reaction $CaO \cdot 6Al_2O_3 \rightleftarrows$ corundum + liquid proceeds within the interval 1500° to 1850°C. for compositions situated along the bordering curve between the fields of corundum and $CaO \cdot 6Al_2O_3$. The field of $CaO \cdot 6Al_2O_3$ borders with the fields of stability of corundum, anorthite, gehlenite, and $CaO \cdot 2Al_2O_3$. The bordering curves between the fields of corundum, $CaO \cdot 6Al_2O_3$, and anorthite converge in a five-point locus having a melting point of 1495° ± 5° and a composition of 41.0 ± 0.5% Al_2O_3, 36.0 ± 0.5% SiO_2, and 23.0 ± 0.5% CaO. B.Z.K.

Lavrov, I. V.

✓Oxides of titanium in the range TiO_2 to Ti_2O_3. N. E. Filonenko, V. I. Kudryavtsev, and I. V. Lavrov. *Doklady Akad. Nauk S.S.S.R.* 86, 581–4(1952).—When small cylinders of commercial (98.7%) TiO_2 were heated in an induction furnace to 1600° and then held at 1500°, light-gray and bluish gray substances were formed on the surface with the compn. $Ti_2O_3 \cdot 3.1\text{-}3.6TiO_2$; these had a H_2SO_4-insol. residue of 8–11%. When the TiO_2 was heated to 1680° and held at 1600°, a rose-colored substance with the compn. $Ti_2O_3 \cdot 1.1\text{-}1.2TiO_2$ was formed, which was completely acid-sol. Photomicrographs, analyses, and tables of x-ray interplanar distance (Cu emission) on $Ti_2O_3 \cdot TiO_2$ (Ti_3O_4) and $Ti_2O_3 \cdot 3\text{-}4TiO_2$ are given. This work tends to confirm the previous opinion (*C.A.* 45, 6452a) that Ti_2O_3 exists in anosovite. Malcolm Anderson

(2)

all Union Sci Res Inst of Abrasives & Polishing

LAVROV, I. V.

2025. The problem of mullite fusion.—N. F. FILONENKO and I. V. LAVROV (*C.R. Acad. Sci. U.R.S.S.*, 85, 141, 1953). Toropov and Galakhov (*ibid.*, 78, 299, 1951) recently published new data on the system Al_2O_3–SiO_2 according to which mullite melts at 1,870° C. without decomposition. The present authors, doubting these results, made an investigation and found that mullite melts with decomposition into corundum and a

LAVROV, I. V.

Dissertation: "Investigation of the Alumina Portion of the System Na_2O - Al_2O_3 - SiO_2." Cand Chem Sci, Leningrad State U, Leningrad, 1954. Referativnyy Zhurnal--Khimiya, Moscow, No 14, Jul 54.

SO: SUM No. 356, 25 Jan 1955

Lavrov, I. V.

20-3-45/59

AUTHORS: Filonenko, N.Ye., Lavrov, I. V., Andreyeva, S. V., Pevzner, R. L.

TITLE: Note on Alumina Spinel $AlO.Al_2O_3$ (O glinozemistoy shpineli $AlO.Al_2O_3$).

PERIODICAL: Doklady Akademii Nauk, 1957, Vol. 115, Nr 3, pp. 583-585 (USSR).

ABSTRACT: On the occasion of the microscopic investigation of the reduction products of the components of a layer with a high content of alumina the authors found a corundum resorption with the formation of a vitreous isotrope phase, if the reduction was effected by solid carbon (for the production of electro-corundum) (Light diffraction in some granules 1,77-1,80). This phase displays a lattice, the parameter of which is close to that of alumina, but differs from it by its higher diffraction (higher than corundum). This phase is produced as a result from the solution of corundum and is consistent at 1900°C. These facts justify the assumption, that the interaction of corundum with carbon follows the reaction. $3\ Al_2O_3 + C = 2\ Al_3O_4 + CO$. For control purposes a synthesis was accomplished. Samples synthetisized at 1500°C were black, at 1600°C and above they were white and contained no corundum, but consisted almost entirely of the isotrope phase. At 1600°C it is

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formed by isometrical granules about 2-4 μ in size. In addition to that, it contains aggregates of microlithes with a high light diffraction and double refraction. At 1700°C there appeared, besides isometrical granules of the isotrope phase, recristallized parts, 6-10μ in size, of the phase with irregular form with numerous gas inclusions. At 1750°C this layer is sintered into a uniform mass with many gas bubbles. No crystals are visible. At 1800°C the structure changes instantaneously. The sample consists of isometrical crystals of the isotrope phase 60-100 μ in size. In between a small amount of very fine foils of an unknown phase were found. The chemical analysis brought out for samples produced at 1600°C: $AlO-1,26Al_2O_3$, at 1700°C: $AlO.1.21.Al_2O_3$ and at 1750°C: $AlO.1.06\ Al_2O_3$. X-ray analysis showed the composition to consist of a single phase (sample at 1600°C), its lattice parameter a = 7,92Å. The spectral analysis showed very clearly, that aluminium is represented only by the brightest lines Al 3082,16 and the doublet Al 3092,7, Al 3092,8 in the γ - spectra of alumina and corundum. These lines are much more intensive in the spinel spectrum than in the case of alumina and corundum, and there occur 6 other lines, which are characteristic for reduced aluminium. All these facts can be explained, apparently, by a weaker combination between Al and O in the

spinel than in the γ - alumina and in the corundum. Hence, a spinel of the given composition was synthesized by the interaction of alumina with solid carbon in the range from 1600-1800°C, displaying a very high melting point (1980-1990°C), a high mirohardness (H = 2070 kg/mm²) and good chemical resistivity.
There are 4 figures (in one table).

ASSOCIATION: All-Union Scientific Research Institute for Abrasives and Grinding (Vsesoyuznyy nauchno-issledovatel'skiy institut abrazivov i shlifovaniya).

PRESENTED: By D. S. Korzhinskiy, Academician., March 12, 1957.

SUBMITTED: March 12, 1957.

AVAILABLE: Library of Congress.

LAVROV, I. V.

"Analysis of the Alumina Component in the Na_2O - Al_2O_3 - SiO_2 System" p. 462

Transactions of the Fifth Conference on Experimental and Applied Mineralogy and Petrography, Trudy ... Moscow, Izd-vo AN SSSR, 1958, 516pp.

reprints of reports presented at conf. held in Leningrad, 26-31 Mar 1956. The' purpose of the conf. was to exchange information and coordinate the activities in the fields of experimental and applied mineralogy and petrography, and to stress the increasing complexity of practical problems.

5(1,2)

AUTHORS: Filonenko, N. Ye., Lavrov, I. V., Andreyeva, S. V.

SOV/20-124-1-44/69

TITLE: On the Aluminum Oxycarbides (Ob oksikarbidakh alyuminiya)

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 124, Nr 1, pp 155-158 (USSR)

ABSTRACT: The solid production by synthesis of the substances mentioned in the title by an immediate interaction of alumina with carbon is of interest for the industry using corundum material (refractory or grinding material). The authors carried out the synthesis in order to investigate those problems and also to determine the optical properties of the Al-oxycarbides. Batches were produced basing upon the process of the following reactions:

(1) $3Al_2O_3 + C = 2Al_3O_4 + CO$ (C-content 4%);

(2) $2Al_2O_3 + 3C = Al_4O_4C + 2CO$ (C-content 15%);

(3) $Al_2O_3 + 3C = Al_2OC + 2CO$ (C-content 26%).

The components were: highly disperse (2 - 0 μ) γ-alumina and mineral oil coke (grains 50-0 μ).

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The briquets produced from them were subjected to a heat treatment in the "Tamman" furnace at 1500-1900° for up to 3.5 hours. The loss of weight suffered during the reaction was recorded (Fig 1). A microscopic analysis according to the immersion method was then carried out in polished sections (Figs 2,3) and a chemical analysis in some cases. Properties of the determined aluminum tetra and monoxycarbide are described. The comparison of the results of chemical and microscopic analysis as well as the loss in weight of briquets prove that spinel is the first product of interaction of alumina with solid carbon; this being independent of the carbon content in the batch. The composition of the final products corresponds to the reactions (1), (2) and (3). Thus, it was proved that Al_4O_4C and Al_2OC can be synthesized not only from the liquid phase by crystallization of the Al_2O_3-Al_4C_3 melts (Ref 1) but also in the solid phase between 1700 and 1850° from alumina and carbon.

On the Aluminum Oxycarbides SOV/20-124-1-44/69

There are 3 figures, 1 table, and 2 Soviet references.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut abrazivov i shlifovaniya
(All-Union Scientific Research Institute of Abrasives and Grinding)

PRESENTED: July 23, 1958, by D. S. Korzhinskiy, Academician

SUBMITTED: July 29, 1958

Card 3/3

FILONENKO, N.Ye.; LAVROV, I.V.

Microstructure of electrocorundum. Ogneupory 25 no.8:359-362 '60.
(MIRA 13:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut abrazivov i shlifovaniya.
(Corundum)

LAVROV, K. A.

24277 LAVROV, K. A. Sinapsy spinnogo mozga. Trudy Akad. med. nauk SSSR, T. III, 1949, S. 140.

SO: Letopis, No. 32, 1949.

LAVROV, K. A.

24278 LAVROV, K. A. Transplantatsiya nervnoy tkani v perednyuyukameru glaza. (Eksperim.-Gistol. Dannyye). Trudy Akad. med. nauk SSSR. T. III, 1949, S. 171-172.

SO: Letopis, No. 32, 1949.

LAVROV, K. A.

24276 LAVROV, K. A. Ostrukture miokarda. Trudy Akad. med. nauk SSSR, T. III, 1949, S. 223-24.

SO: Letopis, No. 32, 1949.

[illegible], K.A.; [illegible], P.P.; [illegible], S.S.

Petr Andreevich Sokolov; on his 60th birthday. Arkh.anat.gist.i (MIRA 14:5)
embr. 39 no.7:124-125 Jl '60.
(SOKOLOV, PETR ANDREEVICH, 1900-)

LAVROV, K.P.

Morskoi transport na russkom Dal'nem Vostoke. [Sea transport in the Russian Far East]. (Ekon. vestnik Man'chzhurii, 1924, no. 25, p.10-12).

SO: Soviet Transportation and Communications, A Bibliography, Library of Congress, Reference Department, Washington, 1952, Unclassified.

LAVROV, L., laureat Stalinskoy premii, inzhener-mayor grazhdanskoy aviatsii.

Aeronautics in agriculture. Kryl.rod. 4 no.8:2-3 Ag '53. (MLRA 6:7)
(Aeronautics in agriculture)

LAVROV, L.

Civil aeronautics at the All-Union Agricultural Exhibition. (MIRA 11:6)
Grazhd. av. 12 no.7:5-7 Jl '55.
(Aeronautics in agriculture)

LAVROV, L.

How to treat 13 no.3:32-34 Mr '56. (MLRA 9:7)
(Aeronautics in agriculture)

NAZAROV, Viktor Apolloncvich; LAVROV, Lev Davydovich; GRIGOR'YEVA, A.I., red.; GOR'KOVA, Z.D., tekhn.red.

[Aeronautics in agriculture] Aviatsiia v sel'skom khoziaistve. Moskva, Gos.izd-vo sel'khoz.lit-ry, 1960. 94 p.
(Aeronautics in agriculture) (MIRA 13:7)

LAVROV, L.

How to increase effectiveness in spraying from the air. Grazhd.av. 17 no.4:26-27 Ap. '60. (MIRA 13:9)

1. Starshiy inzh.-inspektor Upravleniya aviatsii spetsial'nogo primeneniya i vozdushnykh s"yemok.
(Spraying and dusting in agriculture)
(Aeronautics in agriculture)

LAVROV, L.G.; LAKERNIK, M.M., doktor tekhn. nauk

Investigating the thermodynamic properties of iron protoxide in silicate-calcium slags. Sbor. nauch. trud. Gintsvetmeta no.23:5-20 '65. (MIRA 18:12)

SOV/136-59-6-6/24

AUTHORS: Lakernik, M.M. Candidate of Technical Sciences and Lavrov, L.G., Fokin, N.A., Engineers

TITLE: Electrothermic Treatment of the Berezovskiy Complex Concentrate (Elektrotermicheskaya pererabotka Berezovskogo kollektivnogo kontsentrata)

PERIODICAL: Tsvetnyye metally, 1959, Nr 6, pp 32 - 38 (USSR)

ABSTRACT: The concentrate used contains 3.5% copper, 7% lead, 22% zinc, 20% iron, 30% sulphur and 7% silica. Laboratory tests showed that it could be successfully melted in a sealed electric furnace. After many tests, the Irtyshsk Works constructed a furnace for production. It is a three-phase 3 000 kVA furnace with internal diameter 3 600 mm and hearth area 10 m^2 (Figure 1). Graphite electrodes, water cooled in the arch, are used. The hearth and wall linings are chrome magnesite and the metallic furnace case is sprayed with water. Melting occurs with 4.5 - 7.5 thousand amps. The gases are sharply cooled in a settling chamber (Figure 2), where zinc and lead condense. The furnace is loaded mechanically through a bunker (Figure 3). The temperature under the arch is 1 100 - 1 150 °C and the

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slag temperature 1 300 - 1 350 °C. The furnace is sealed and the pressure regulated automatically by an oil regulator type RDNBI-100. It has been shown that this furnace can be used for complex polymetallic products inaccessible by ordinary metallurgical processes. During the process, 20% lime is added to obtain a slag with the correct properties. The slag contains 0.18% Cu, 0.15% Pb, 2.4% Zn, 14% Fe, 33% SiO_2 and 36.4% CuO. The crude metal contains 20% Cu, 6% Pb, 2.4% Zn, 40% Fe, 22% S. Enough coke is added to produce a gas containing 90% CO which has the correct reducing conditions. The dust obtained from the settling chamber consists of 20% Pb, 70% Zn, 4% S, 0.3% Cd, 0.4% Cu, 0.8% Fe, 1.5% SiO_2 and 0.75% CaO. The advantages of the process are that it is easy to mechanise and good hygienic working conditions are maintained. The disadvantages are that

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the gas is high in carbon monoxide and that the process has a high energy capacity which means it can only be used where cheap electrical energy is available. There are 7 figures.

LAKERNIK, M.M.; LAVROV, L.G.; SHABALINA, R.I.

Condensing zinc into a liquid metal in a lead-sprayed condensator during the electrothermal treatment of intermediate products from complex metal ores. Sbor. nauch. trud. Gintsvetmeta no.19:387-396 '62. (MIRA 16:7)

(Nonferrous metals--Electrometallurgy)
(Condensation products(Chemistry))

LAVROV, L. I.

LAVROV, L.

Earthquake in 1667 in Dagestan. Izv.AN SSSR.Ser.geofiz. no.8:1080 Ag '57. (MLRA 10:8)

(Dagestan--Earthquakes)

LAVROV, L.I.

Rutuls. Sov.etn. no.4:30-40 '53. (MLRA 6:12)
(Rutuls)

LAVROV, L.I.

Abaza (historical and ethnographical study). Trudy Inst. etn. 26: 5-47 '55. (MIRA 8:4)
(Abaza)

LAVROV, L.I.

SOKOLOVA, I.B.; LAVROV, L.I.

Helminths of the domestic and wild ungulates in the Caspian Sea region. Trudy Inst. zool. AN Kazakh. SSR 5:105-111 '56.
(MLRA 9:12)

(Caspian Sea region--Worms, Intestinal and parasitic)
(Parasites--Ungulata)

LAVROV, L. I.

USSR/Zooparasitology - Parasitic Worms. G-2

Abs Jour : Ref Zhur - Biol., No 6, 1958, 24370

Author : Boev, S.N., Lavrov, L.I., Zakhryalov, Ya.N., Maksimova, A.P.

Inst : -

Title : Data on Helminthofauna of Wild Ruminant Animals of Western Tyan-Shan.

Orig Pub : Tr. In-ta zool. AN KazSSR, 1957, 7, 151-155

Abstract : In wild ruminants of the Aksu-Dzhebaglin game reserve, 28 species of helminths were found, among them 25 in arkhar (3 specimens were dissected), 18 in Siberian ibex (9), 4 species in roe deer (3). In Siberian ibex, Marshallagia mongolica, Marchalus raillieti and Skrjabinema were identified for the first ime; in roe deer-- N. oiratianus; in arkhar, N. abnormalis and Ostertagia trifurcata. The scarcity of helminthofauna in arkhar and roe deer, the low intensity of infection and almost total absence of

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USSR/Zooparasitology - Parasitic Worms.

Abs Jour : Ref Zhur - Biol., No 6, 1958, 24370

cestodes is related to climatic factors. At present, 32 species of helminths altogether are known in arkhar, 27 in Siberian ibex, and 20 in roe deer. A high degree of infection by skreben is noted in all 3 species of ungulates.

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LAVROV, L.I.

Dynamics of the infection of bovid livestock with intestinal cestodes in southern Kazakhstan. Trudy Inst. zool. AN Kazakh. SSR 9:42-66 '58. (MIRA 11:7)
(South Kazakhstan Province--Cestoda) (Parasites--Domestic animals)

LAVROV, L.I.

Fauna and dynamics of intestinal cestodes infesting cattle in northern Kazakhstan. Trudy Inst.zool.AN Kazakh. SSR 12:150-165 '60. (MIRA 13:7)
(Kazakhstan--Cestoda) (Parasites--Cattle)
(Parasites--Sheep)